(Modified Claims forming the basis of the IPER))

CLAIMS

1. Filter device (1) for the separation of undissolved solid substances from liquids, in particular in the fields of waste water purification and water treatment, with several filter elements (6), for the introduction into a container (2) containing the unpurified liquid, wherein through the individual filter elements (6) a filtrate is capable of being drained away, the filter elements are arranged so as to be capable of rotating around a horizontal axis, and the filter elements (6) are designed and arranged in such a manner, that they form a hollow space (4) in the centre, **characterised in** that the filter device comprises a gassing installation (8), which is stationarily arranged in the hollow space (4) and which for the formation of a mixture of gas and liquid is capable of being impinged with compressed gas and which is arranged in such a manner, that in the liquid a flow of a mixture of gas and liquid is capable of being produced at the filter elements (6), which renders an adhesion of solid substances to the filter elements (6) more difficult, and the filter elements (6) are arranged to be rotatable around the gassing installation (8), wherein the gassing installation (8) comprises either at least one elongated hollow body (10) arranged parallel to a hollow shaft (9), which is closed at the ends on both sides, or comprises at least one elongated hollow body (10) arranged horizontally as well as orthogonally to a hollow shaft (9), and the at least one hollow body (10) is connected with a chamber (12) of the hollow shaft (9) through connecting pieces (11), wherein the chamber (12) is connected with a compressed gas generator (14).

2. Filter device according to claim 1, **characterised in** that the hollow space (4) is connected with the container (2) through apertures (5).

3. Filter device according to claim 1, **characterised in** that the hollow space (4) is closed relative to the container (2).

4. Filter device according to claim 1 to 3, **characterised in** that the filter elements (6) are rotatably supported by bearings (21, 22) on the hollow shaft (9) connected with the gassing installation (8).

5. Filter device according to one of the claims 1 to 4, **characterised in** that the hollow shaft (9) comprises a second chamber (26), which is connected with a vacuum pump (33) for draining away the filtrate.

6. Filter device according to claim 5, **characterised in** that the chamber (26) for the draining away of the filtrate is provided with channels (27), which extend radially to the chamber (26) through the hollow shaft (9) and through a sliding ring (28) arranged as rotatable on the hollow shaft (9), which is connected with piping conduits (29), which are connected with the filter elements (6).

7. Filter device according to one of the claims 1 to 6, **characterised in** that the at least one hollow body (10) of the gassing installation (8) for the purpose of preventing sediments from the filter liquid is provided with open socket pieces (34) directed downwards.

8. Filter device according to claim 1, **characterised in** that in the upper zone of the apertures (5) semicircular spoilers are attached, in order to increase the effect of the flow of compressed air on the filter liquid.

9. Filter device according to one of the claims 1 to 8, **characterised in** that the at least one hollow body (10) in preference is designed as pipe-shaped and in order to allow the compressed gas to escape consists either of a porous material or else is provided with holes (15).